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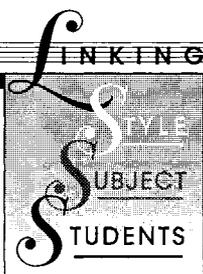
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A Matter of Style:

The Teacher as Expert, Formal Authority, Personal Model, Facilitator, and Delegator

Anthony F. Grasha

My interest in teaching styles was a natural extension of my work over the past twenty years on student learning styles. During this period of time, I conducted research, wrote articles, and presented at workshops and conferences on various styles of students such as competitive, collaborative, dependent, independent, participatory, and avoidant. My research described how such characteristics affected students' behavior in class and how faculty members could accommodate such qualities in students (Grasha and Riechmann 1975; Grasha 1983; Grasha 1990).

Learning styles, unfortunately, were only one-half of the teacher-student interaction. The personal qualities of college teachers and their effects on the learning styles of students and upon what transpired in the classroom were missing from my work. Such qualities are sometimes called teaching styles, and a number of schemes for describing them were mentioned in the literature. Current typologies allowed college teachers to be classified as enthusiastic, organized, intuitive, introverted, ego-ideal, as a motivator, artist, dialogist, or

as any one or more of several dozen other names (cf., Abelson 1973; Lowman 1990; Mann et al. 1970; Reinsmith 1992). The problem with these approaches was that they were largely descriptive. They did not deal with how various teaching styles could be modified or when it was appropriate to use them.

Thus, in 1988 I began a program of research to develop a conceptual model of teaching style. My goals were to describe the stylistic qualities that college teachers possessed and to offer suggestions for when and how to employ them. I assumed that a teaching style represented a pattern of needs, beliefs, and behaviors that faculty displayed in their classroom. Style also was multidimensional and affected how people presented information, interacted with students, managed classroom tasks, supervised coursework, socialized students to the field, and mentored students.

Elements of Style

My first task was to determine what qualities of faculty were pervasive across a variety of disciplines and classroom environments. I turned to the literature on teaching and began extensive observations of the ways people taught. I also interviewed faculty and held discussions with college teachers in the workshops and seminars that I conducted nationally. Such efforts produced

a diverse, rich source of material about how and why people taught in particular ways. A thematic analysis of this information eventually suggested that five teaching styles were pervasive in the college classroom. They were the styles of expert, formal authority, personal model, facilitator, and delegator. Table 1 describes each one of them, along with the advantages and disadvantages they appeared to possess for teachers.

Although it might be tempting to place teachers into one of "five boxes," my initial observations suggested that such attempts at parsimony were premature. Instead, it became apparent that all teachers possessed each of the qualities described in table 1 to varying degrees. In effect, each individual style was like a different color on an artist's palette. Like those colors, they could be blended together. In all, four combinations of styles were present in a thematic analysis of my observations, interviews, and workshop experiences. Each of these four clusters is listed in table 2.

My observations suggested that college teachers used some styles more often than others. Thus, each cluster reflects the fact that some blends of styles are dominant and others are secondary. The primary or dominant styles are like the foreground in a painting. They are easily seen and central to understanding the artist's vision. The other qualities

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Table 1.—Five Teaching Styles

Style	Description	Advantage	Disadvantage
Expert	Possesses knowledge and expertise that students need. Strives to maintain status as an expert among students by displaying detailed knowledge and by challenging students to enhance their competence. Concerned with transmitting information and ensuring that students are well prepared.	The information, knowledge, and skills such individuals possess.	If overused, the display of knowledge can be intimidating to inexperienced students. May not always show the underlying thought processes that produced answers.
Formal authority	Possesses status among students because of knowledge and role as a faculty member. Concerned with providing positive and negative feedback, establishing learning goals, expectations, and rules of conduct for students. Concerned with the “correct, acceptable, and standard ways to do things.”	The focus on clear expectations and acceptable ways of doing things.	A strong investment in this style can lead to rigid, standardized ways of managing students and their concerns.
Personal model	Believes in “teaching by personal example” and establishes a prototype for how to think and behave. Oversees, guides, and directs by showing how to do things, and encouraging students to observe and then to emulate the instructor’s approach.	The “hands on” nature of the approach. An emphasis on direct observation and following a role model.	Some teachers may believe their approach is “the best way,” leading some students to feel inadequate if they cannot live up to such expectations and standards.
Facilitator	Emphasizes the personal nature of teacher-student interactions. Guides students by asking questions, exploring options, suggesting alternatives, and encouraging them to develop criteria to make informed choices. Overall goal is to develop in students the capacity for independent action and responsibility. Works with students on projects in a consultative fashion and provides much support and encouragement.	The personal flexibility, the focus on students’ needs and goals, and the willingness to explore options and alternative courses of action to achieve them.	Style is often time consuming and can be ineffective when a more direct approach is needed. Can make students uncomfortable if it is not used in a positive and affirming manner.
Delegator	Concerned with developing students’ capacity to function autonomously. Students work independently on projects or as part of autonomous teams. The teacher is available at the request of students as a resource person.	Contributes to students perceiving themselves as independent learners.	May misread students’ readiness for independent work. Some students may become anxious when given autonomy.

are like the background. When teachers lecture, one sees the expert and formal authority side of them much more easily than the modeling, facilitative, or delegative parts of their styles.

But teaching styles are more than interesting qualities. They also serve an important function in the classroom. Consider the metaphor of an artist creating a painting. Colors on a canvas are blended and organized in order to make some statement or to create a certain mood. In much the same way, each of the four clusters of teaching styles depicted in table 2 makes a statement about “who I am as a person.” They also help to create a particular mood or emotional climate in class.

For example, consider two of the clusters depicted in table 2. An emphasis on the expert/formal authority blend sends a message to students that “I’m in charge here.” It also creates a rather neutral or “cool” emotional climate. As normally practiced, lectures transmit information to students who become relatively passive. In this atmosphere, the expression of emotions is usually held in check except for those rare instances when sparks fly, and a lively debate occurs.

In contrast, an emphasis on the expert/facilitative/delegative blend creates a different picture. It sends a message to students that “I’m here to consult with you on the projects and issues you are

exploring.” The nature and quality of the interactions are different. Teachers and students work together, share information, and the boundaries between teacher and student are not as formal. The emotional climate is “warmer.” Also, there are more opportunities for participants to openly express how they feel about tasks and perhaps about each other.

Constraints on the Expression of Style

An artist’s imagination, her propensity for taking risks, the subject matter, and the colors available on the palette place limits on artistic expression. In much the same way, several factors ap-

Table 2.—Methods Associated with Each Teaching Style Cluster

<p>CLUSTER 1</p> <p><i>Primary styles:</i> Expert/formal authority</p> <p><i>Secondary styles:</i> Personal model/facilitator/delegator</p> <p>Lectures Term papers Tutorials Guest presentations Video/audio presentations of content Guest speakers Teacher-centered class discussions Strict standards/requirements Grades/tests emphasized</p>	<p>CLUSTER 3</p> <p><i>Primary styles:</i> Expert/facilitator/personal model</p> <p><i>Secondary styles:</i> Formal authority/delegator</p> <p>Small group discussion Laboratory projects Instructor-designed group projects Student teacher of the day Self-discovery activities Learning pairs/debates Case studies Role plays/simulations Problem-based learning Practicum/guided readings</p>
<p>CLUSTER 2</p> <p><i>Primary styles:</i> Expert/personal model/formal authority</p> <p><i>Secondary styles:</i> Facilitator/delegator</p> <p>Demonstrating ways of thinking/doing things Coaching/guiding students Illustrating alternatives Sharing personal viewpoints Sharing thought processes involved in obtaining answers Using personal examples to illustrate content points Having students emulate the teacher's example</p>	<p>CLUSTER 4</p> <p><i>Primary styles:</i> Expert/facilitator/delegator</p> <p><i>Secondary styles:</i> Formal authority/personal model</p> <p>Student-designed group projects Independent study Independent research projects Position papers Student journals Modular instruction Self-discovery learning projects Contract teaching Cooperative learning activities</p>

pear to confine the expression of teaching styles. When asked the question "What influences your teaching style?", 560 college teachers in my various workshops and seminars frequently listed the following items:

- The nature of the course (required/not required; major/nonmajor)
- Size of the class
- The subject matter (hard sciences versus humanities)
- Level of the students (freshmen, seniors, graduate)
- How much they liked the class
- Time pressure
- Need to prepare students for standard exams
- Information about alternative ways to teach
- Willingness to take risks
- Not wanting to deviate from department and college norms for teaching

For example, participants reported that the expert/formal authority ap-

proach to teaching was popular when classes were large, required in the major, the students were mostly freshmen and sophomores, there was time pressure to cover material, or they had to prepare their students for taking standard exams. They also indicated that they preferred the expert/formal authority blend because it provided an acceptable way to "go through the motions" of teaching courses they disliked. In addition, it was popular because it helped them to easily meet the expectations of colleagues for "how I should teach."

In contrast, participants using an expert/facilitative/delegative blend of styles reported they were more willing to take risks. They also had information about collaborative and active learning strategies and stated they were more likely to employ such styles when teaching upper level and graduate courses.

Classroom observations suggested that faculty falling within each of the clusters in table 2 were prone to use certain teaching methods. My initial list of such methods was shared with participants in my workshops and seminars. Agreement with my initial scheme was high, and participants also provided additional items for my list. Table 2 represents the outcome of this effort.

What Do Teachers Need to Know?

Next, I developed a model that described the factors associated with adopting and changing various combinations of teaching styles. I was interested in answering the following two questions:

"What do teachers need to take into account in order to adopt and effectively use the four clusters of styles?"

"If someone wanted to modify their style, what factors would they have to consider?"

Very little was found in the literature on how to adopt or modify particular styles, until I found the work of Paul Hersey and Ken Blanchard (1992). Although they wrote about leadership styles in business and industry, their observations appeared relevant to the college classroom: The classroom teacher could be viewed as a leader and/or a manager of classroom resources. Hersey and Blanchard argued that the capability of people, their interest in controlling tasks, and their concerns for building interpersonal relationships were important determinants of leadership style. My translations of the latter concepts to the classroom are described in table 3.

What do teachers need in order to adopt and effectively employ the four clusters of styles? Consider for a moment the combination of styles and teaching methods in cluster 1 of table 2. Here the expert/formal authority blend is dominant. My observations suggested that such styles worked best when dealing with students who were less capable with the content and when instructors were willing to personally control classroom tasks. Although it might be enjoyable, it did not appear necessary for a teacher to devote time to building relationships with students or for students

to build relationships with each other. One need only observe how this teaching style is played out in large classes to appreciate the latter point.

In contrast, consider the demands of the expert/facilitative/delegative blend depicted in cluster 4 of table 2. This combination of teaching styles works best when students are capable and have appropriate levels of knowledge, can take initiative, and can assume responsibility. To use the student-centered teaching methods of cluster 4 means that teachers must be willing to give up some control over tasks. After all, an independent study or collaborative project would be less interesting if the teacher planned every little detail for participants. Consequently, the combination of the expert/facilitative/delegative styles demands that teachers empower students and that faculty show some concern for building relationships. The teacher must be viewed as approachable in order to consult effectively with students. In turn, students must learn how to improve their interactions with each other to work effectively together.

The combinations of styles in clusters 2 and 3 depicted in table 2 also are associated with variations in the three factors described above. The expert/personal model/formal authority styles are seen in teachers who rely on personal modeling and coaching. For this blend to work well, students need to be more capable than the level required in cluster 1. Teachers must build relationships with students in order to coach effectively. They must have control of the task but also must empower students to take initiative to apply what is learned.

The demands for adopting the expert/facilitator/personal model styles in cluster 3 are similar to those in cluster 4. The teacher is in the role of designing opportunities for learning that stress collaborative and self-directed experiences. An important difference is that the expert/facilitator/personal model styles require someone to supervise learners and to play a more central role in designing projects and activities for students. In addition, some attention must be paid to developing good interpersonal relationships with students and

teaching them how to work closely together. For their part, students must be willing to take initiative and accept responsibility. But they do not have to be as competent in this regard as they would for the activities in cluster 4.

Modifying Teaching Styles

If someone wanted to modify their styles of teaching, what factors would they have to consider? Once again, those identified in table 3 provide one way to answer this question. To move, for example, from the combination of the expert/formal authority styles to the expert/facilitator/delegator blend, a teacher would need to exercise flexibility. Direct control of classroom tasks would need to decrease; work would need to occur on building relationships with and among students, and the capability of students to handle the content would have to be high.

Resistance to Change

My experiences working with college faculty suggested that changing from existing practices was difficult. This was particularly true of making the large leaps from the teacher centered methods of cluster 1 to the student centered processes described in clusters 3 and 4. One of the attractions of the expert/formal authority style, for example, is the control it provides over a classroom environment. It is not easy to take a less central role and to empower students. I have had colleagues tell me, "I could never show a video tape or hold a small group discussion in my classes. Such things would take valuable time away from what I have to offer." Or, as another person said, "I would consider it an insult for someone to ask me to teach that independent study section of introductory psychology. It assumes I have nothing to tell the students, and they can learn everything they need on their own!"

I also knew that many faculty were uncomfortable with nontraditional teaching methods for other reasons. A frequent comment from workshop participants was, "I tried group projects once, and they did not work. All the students did was socialize." Or, "I put people in small groups, but the work

Table 3.—Three Factors Associated with Selecting a Teaching Style

1. *Capability of students to handle course demands. Capability determined by students':*
 Knowledge of course content
 Ability to take initiative/responsibility
 Emotional maturity
 Motivation and ability
2. *Need for teacher to directly control classroom tasks. Control maintained by how instructor:*
 Organizes course and defines what must be learned
 Specifies performance levels for students
 Maintains control over classroom
 Closely monitors student progress
3. *Willingness of teacher to build and maintain relationships. Interest indicated by how much teacher:*
 Encourages two-way communication
 Listens carefully to students
 Assists with resolving conflicts
 Provides positive feedback and encouragement
 Stresses good interpersonal communication skills
 Is concerned with building rapport
 Shows students how to work together

was only done by a couple of them." Furthermore, students with the needed expertise who can take initiative and responsibility for their learning are a minority. Consequently, a certain amount of frustration with cluster 3 and 4 teaching processes was inevitable for those brave souls willing to innovate.

Overcoming Resistance to Change

Adopt a New Perspective on Control

Concerns about "losing control over what happens in class," "being taken advantage of by students," or "having my role diminished" are understandable. What most teachers do not recog-

nize is that the underlying elements of control and authority found in the lecture-discussion method are identical to those required by all classroom procedures. The key is to use control with methods that do not rely on the style of expert/formal authority.

The elements of control in the lecture-discussion method are

- The authority of the teacher is respected.
- How time is spent in class is strictly managed.
- Outcomes of the time spent are specified.
- Teachers and students have clearly defined roles.
- Participants are held accountable for learning the material.

The important point is that the elements of control in the expert/formal authority styles of teaching can be transferred to other situations. In such cases, control is not given up. Rather, it is redirected toward a broader set of goals and objectives such as developing critical thinking, teamwork, or the capacity to work independently. Consider how this can be done in a cluster 3 teaching method such as small group discussions.

Use Control over Small Groups

As is true in the lecture method, permission is not needed. Students will respect the teacher's authority to have them break into small groups. The time on task, however, must be strictly managed. Announce an agenda for the session and indicate how much time will be spent discussing issues. Ensure that students know what to expect from their time together. Tell them the purpose behind the small group format and what you hope to accomplish. You might want them to define concepts, integrate issues from the text, apply principles and concepts, or simply have someone else listen to their ideas.

Assign participants clear roles to play. People interact better in any setting when their roles are clearly defined. In a small group discussion, several roles are possible. They include a recorder of the group's deliberations, a time keeper, a discussion monitor who

checks to ensure that everyone gets a chance to speak, or if appropriate, even a devil's advocate. Finally, hold participants accountable for acquiring the information. The outcomes of the small group discussions should be shared with the whole class. The instructor may comment or ask members of the class to clarify certain points. The remarks of the teacher and participants can be used to develop exam questions about the issues discussed. Or students might write a short reaction paper or list two or three new ideas that the discussion raised.

Adopt a New Perspective on Students' Capability

Capability can be viewed as static or as something that students may or may not possess. The disadvantage of this attitude is that one must wait for a group of "mature" students to show up before trying new strategies. But capability in students can be dynamic and can be seen as something the teacher develops over time. Thus, teachers can go beyond the expert/formal authority modes to foster improvements in students. When facilitative and delegative modes of teaching are used, students can learn to take initiative, assume responsibility, and develop their knowledge and skills.

For example, in one study students were randomly assigned to two sections of the same course. One group was taught using teacher-centered methods for two semesters. Thus the expert/formal authority blend of styles prevailed.



STEVE BUHMAN/SOUTHERN ILLINOIS U. AT CARBONDALE

Teacher as formal authority



ST. JOHN'S UNIVERSITY, COLLEGEVILLE, MINNESOTA

Teacher as facilitator

In the second group, however, attempts were made gradually to increase the capability of students to take initiative and have responsibility for their learning. The second group started out with the lecture–discussion method but was gradually introduced to more student-centered approaches. Thus, methods compatible with the facilitative and delegative styles were progressively employed. The results were remarkable. Compared to students with a steady diet of the lecture–discussion method, those exposed to more student-centered teaching showed significant gains in mastering content, were more satisfied with the course, had higher levels of enthusiasm and morale, and were less tardy and absent from class (Hersey, Blanchard, and Caracushansky 1992).

But students may not have the skills needed to work together. Some remain silent or do not contribute to the work of the group. A few may try to dominate discussions or create conflicts with other members. The underlying problem is a lack of skill in how to work together. Thus, the teaching methods in clusters 3 and 4 of table 2 demand that college faculty spend some time teaching students how to work together.

One of the best ways to accomplish the latter goal is to require that groups process their interactions. At the end of a collaborative activity, people share events that assisted or hindered their ability to work together. They develop ideas for how future sessions could be improved. The instructor should monitor such comments and periodically summarize issues that everyone in class must consider.

Develop Options for How to Teach Content

Sometimes faculty members fall into a rut, and their teaching becomes very predictable. A process for developing new practices can break this cycle. One suggestion I have recommended to college teachers is to do the following:

1. Think of a class session you will soon teach and list two or three goals you want to achieve. For example: I want students in my introductory class to understand the distinction between

the id, ego, and superego in Sigmund Freud's theory.

2. Specify how you would teach that material in at least two of the following styles: expert/formal authority; personal model; and facilitative/delegative. For example:

Expert/Formal Authority

I can give a lecture on each personality component and how they interact.

Personal Model

I can provide students with an example from my personal life where each component was competing for attention. Or, I could design a role play situation and have several students act out each component. Observers should then be able to see how each part occurs in everyday functioning.

Facilitator/Delegator

I can give students a study guide. I could have an equal number of students focus on each one of the components in a library search. In class, I would place people into small groups of three and have them share what they found. Everyone would then have to complete the study guide using information obtained from other group members.

Vary how content goals are taught within and across class sessions. Thus, some goals would be taught in an expert/formal authority mode while others would emphasize the personal model or the facilitative/delegative styles of teaching. In a given class or across class sessions, students would be exposed to a variety of teaching methods. The specific teaching processes mentioned in table 2 provide examples of teaching strategies to achieve a variety of content goals.

Distribution of Teaching Styles in the Classroom

The final phase of the teaching styles' project examined how the five styles were distributed across grade levels, the rank and gender of the instructor, and various academic disciplines. To accomplish this latter goal, the Teaching Styles Inventory was developed. It contains forty items that assess attitudes and behaviors associated with each of the five styles.¹ Teachers rated themselves on the extent to which each item described a particular class they taught. A 7 point rating scale was employed where a 1 = "Very unimportant aspect

of my approach to teaching this course"; and a 7 = "Very important aspect of my approach to teaching this course." Examples of items associated with each style are as follows:

Expert: "Facts, concepts, and principles are the most important things that students can acquire."

Formal Authority: "I set high standards in this class."

Personal Model: "What I say and do models appropriate ways for students to think about content issues."

Facilitator: "Small group discussions are employed to help students develop their ability to think critically."

Delegator: "Students in this course engage in self-initiated, self-directed learning experiences."

The Teaching Style Inventory was then administered to 381 faculty members representing 200 U.S. public and private colleges and universities. Two hundred and seventy-five professors were participants in national and regional workshops that I conducted. The remaining 106 teachers were selected from random samples within two large universities. Everyone was instructed to select two courses they taught and to rate the extent to which each of the forty items on the inventory applied to those courses. Overall, information on 762 classrooms across ten groups of disciplines was obtained.

In order to simplify the presentation of the data, the overall scores for each of the samples were combined in all further analyses. The average scores on the inventory for each academic rank and course level are depicted in table 4. The higher the mean score, the more that particular style was endorsed by participants. The only changes in teaching style that were statistically reliable (i.e., not likely due to chance) were those associated with the expert and formal authority styles. Faculty holding the rank of professor tended to employ these two styles more often than did other teachers. For the most part, the adoption of different teaching styles did not appear to depend on the academic rank of the teacher.

The personal model style changed very little with the level of courses. The other styles, however, were used differ-

Table 4.—Mean Teaching Style Ratings for Faculty Rank and Course Level

	Expert	Formal authority	Personal model	Facilitator	Delegator
Rank					
Instructor (<i>n</i> = 23)	3.90	4.51	5.16	5.17	3.92
Assistant Prof. (<i>n</i> = 193)	4.29	4.93	5.29	5.02	3.68
Associate Prof. (<i>n</i> = 258)	4.35	4.84	5.22	4.93	3.80
Professor (<i>n</i> = 286)	4.37 ^a	5.01 ^a	5.25	4.85	3.70
Level of Course					
Freshman-Soph. (<i>n</i> = 365)	4.39	5.02	5.24	4.72	3.50
Junior-Senior (<i>n</i> = 260)	4.33	4.93	5.32	5.08	3.87
Graduate (<i>n</i> = 130)	4.10 ^a	4.63 ^b	5.17	5.19 ^b	4.13 ^b

n = the number of classrooms in that group.

^aThe differences in mean ratings on this teaching style were statistically reliable or significant (i.e., not likely to be due to chance) as determined by a MANOVA analysis ($p < .05$).

^bThe variations in mean ratings on this teaching style were statistically reliable or significant (i.e., not likely to be due to chance) as determined by a MANOVA analysis ($p < .01$).

ently in upper versus lower level classes. Participants were less likely to assume the expert and formal authority styles with their advanced undergraduate and graduate courses. In contrast, they were more likely to use the facilitator and delegator styles in more advanced courses. If one assumes that upper level classes attract a better prepared student, then faculty were responding appropriately to differences in the capabilities of their students.

Differences in teaching styles among men and women faculty were noted. Compared to their male counterparts, women reported somewhat lower scores on the expert and formal authority scales of the Teaching Styles Inventory and somewhat higher scores on the facilitator and delegator styles. These findings are consistent with other reports showing that women in positions of authority are more likely to downplay their expertise and authority and

are likely to be more democratic (i.e., collaborative and participative) in dealing with subordinates than men are (Eagly and Johnson 1990; Eagly and Karau 1991). These latter qualities are very much a part of the facilitative and delegative styles of teaching.

Variations in teaching style occurred among the ten groups of academic disciplines reported in table 5. The expert style was used more frequently by faculty teaching in the areas of mathematics/computer science and arts/music/theater. It was used less often by those in the humanities and education. The formal authority style appeared to a higher degree in foreign language and business administration classrooms; whereas, education, humanities, and applied science teachers used this style less. Those teaching in the arts/music/theater disciplines reported using the personal model style more often than did faculty elsewhere. Finally, the facilitator and delegator teaching styles occurred to a lesser extent in the classrooms of mathematics/computer science teachers than in other academic areas. These styles were observed more often among teachers in education and in the arts/ music/ theater areas.

The data also allowed the number of faculty who fit into each of the four clusters identified in table 2 to be determined. To do this, the number of par-

Table 5.—Mean Teaching Style Ratings for Each Discipline

Discipline	Expert	Formal authority	Personal model	Facilitator	Delegator
1 Arts/music/theater (<i>n</i> = 34)	4.68 ^{2,10}	5.14 ¹⁰	5.73 ²⁻¹⁰	5.27 ^{8,9}	3.99 ⁹
2 Humanities (<i>n</i> = 130)	3.92 ^{1,5,9}	4.73 ^{3,7}	5.16 ¹	5.12 ⁹	3.77 ⁹
3 Foreign languages (<i>n</i> = 24)	4.22	5.43 ^{2,5,6,10}	5.29 ¹	5.01 ⁹	3.82 ⁹
4 Social science (<i>n</i> = 96)	4.32	5.01 ¹⁰	5.23 ¹	5.00 ⁹	3.76 ⁹
5 Applied studies (<i>n</i> = 100)	4.61 ^{2,10}	4.92 ³	5.22 ¹	5.00 ⁹	3.72 ⁹
6 Applied sciences (<i>n</i> = 92)	4.29	4.70 ^{3,7}	5.29 ¹	4.96 ⁹	3.82 ⁹
7 Business administration (<i>n</i> = 56)	4.41	5.22 ^{2,6,10}	5.21 ¹	4.79 ⁹	3.86 ⁹
8 Physical/biological science (<i>n</i> = 95)	4.47	5.02 ¹⁰	5.18 ¹	4.60 ⁹	3.53 ¹⁰
9 Mathematics/computer science (<i>n</i> = 72)	4.66 ^{2,10}	5.11 ¹⁰	5.23 ¹	4.28 ^{1-8,10}	3.29 ^{1-7,10}
10 Education (<i>n</i> = 62)	3.93 ^{1,5,9}	4.5 ^{1-4,7,8,9}	5.32 ¹	5.41 ^{7,8,9}	4.10 ^{8,9}

n = the number of classrooms in that group.

The Newman-Keuls test was used to determine whether the variations in mean ratings between pairs of discipline groups were statistically reliable (i.e., not likely to be due to chance). For each teaching style, the academic disciplines that showed statistically reliable variations in their mean ratings are represented by the superscript notations (all p 's < .05). For example, for the arts/music/theater group, the notation 4.68^{2,10} appears for the expert teaching style. This signifies that the arts/music/theater group's ratings on the expert style were significantly different from discipline group 2 (humanities) and 10 (education).

ticipants with scores that exceeded the mean on all of the primary styles in each cluster was calculated. This analysis showed that 92 percent of the sample fit into the four clusters. The percentage of participants within each cluster were: cluster 1 (38%); cluster 2 (22%); cluster 3 (17%); and cluster 4 (15%). Together clusters 1 and 2 accounted for 60 percent of the teaching styles used by faculty in this study. Thus, the majority of the faculty in this study taught in a traditional teacher-centered mode. Such data are compatible with a review of the literature by Bonwell and Eison (1991) showing similar trends across college disciplines.

Teachers also were asked to rate how satisfied they were with the courses they taught. A 7 point rating scale was employed where a 1 = "not very satisfied" and a 7 = "very satisfied." The best predictors of teacher ratings were then determined. This analysis showed that teachers who used a facilitative and personal model style were more satisfied with their courses. Satisfaction also was related to the academic rank of participants; full professors were more satisfied with their classes than were instructors and assistant professors.

Such findings, however, did not correspond to the results of a recent study by Julie Sand (1994). She asked students to evaluate the teaching styles of their instructors. Student perceptions of teaching styles were then related to several aspects of the classroom environment. Teachers with a facilitative style were rated highly for contributing to students' learning. On a less positive note, the use of a facilitative style also was rated by students as a major contributor to instructor-student conflict, frustration with teaching methods, and the failure of a course to meet student needs. Her findings indicated that students and faculty differ on what contributes to satisfaction within the classroom. Using a facilitative or student-centered form of instruction probably contributes to tension and anxiety among students comfortable with more traditional methods.

Another implication of the latter

findings is that teachers introducing the methods of clusters 3 and 4 in table 2 need to exercise caution. Some of these methods are debates, role plays, student-designed group projects and independent study. My experience suggests that such processes are best employed when:

- They are introduced gradually into a course.
- A clear rationale for their use is provided.
- Students are given explicit instructions about what is required of them.
- Teachers monitor the reactions of students and intervene appropriately to reduce the impact of possible negative reactions.

Epilogue

My investigation of teaching styles suggests that a variety of styles blend together in the college classroom. I share a sentiment initially expressed by William Reinsmith in his article in this special section. I did not discover the styles as much as I catalogued what was already there. The expert, formal authority, personal model, facilitator, and delegator styles appear to be prevalent aspects of how faculty present themselves in the classroom. They are not isolated qualities that affect only a few teachers. They become components of the "presence" that William Reinsmith identified in his article as well as basic elements that underlie his archetypes. These styles also contribute to a teacher's ability to assume what Joseph Lowman identified as the roles of performer and motivator. Moreover, the effective use of the expert, personal model, and facilitator styles appears to underlie the qualities that O. Alan Weltzien most admired in his descriptions of two memorable professors. It is quite apparent that in so many different ways—teaching in the college classroom appears to be a matter of style.

NOTES

1. I want to acknowledge the help of my research assistants, Scott Kessel and Julie Sand, with the data gathering and scoring of

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